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ANIMAL AND PLANT HEALTH INSPECTION SERVICE
PLANT PROTECTION AND QUARANTINE PROGRAMS
NEW PEST DETECTION AND SURVEY STAFF

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Service serves as a clearing house and does not assume responsibility for accuracy of the material.

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COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

CORN EARWORM economic on peanuts and cotton in Oklahoma and Texas, corn in Nebraska, and soybeans in North Carolina. (pp. 699, 703-704).

Chemical and biological controls effective for GREENBUG in Oklahoma and Nebraska but ineffective in New Mexico. (pp. 699-700).

VELVETBEAN CATERPILLAR heavy on soybeans earlier than usual in Florida; damage expected in northern Alabama (p. 703).

BOLL WEEVIL punctured up to 80 percent of cotton squares in Georgia and Tennessee. (p. 704).

Detection

New State Records include SPOTTED ASPARAGUS BEETLE in California (p. 705) and a WEEVIL in Alabama (p. 707).

For new county and parish records see page 706.

Special Reports

Distribution of Southern Green Stink Bug (map). (p. 716).

Reports in this issue are for week ending August 15 unless otherwise indicated.

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NATIONAL WEATHER SERVICE 30-DAY OUTLOOK

MID-AUGUST TO MID-SEPTEMBER 1975

The National Weather Service's 30-day outlook for mid-August to mid-September is for temperatures to average above seasonal normals in the North Atlantic States and also in the West Coast States and much of the Great Basin. Below normal temperatures are indicated for the southern Great Plains and the South. In unspecified areas near normal temperatures are in prospect. Precipitation is expected to exceed the median amount over the eastern quarter of the Nation as well as the southern Great Plains, the lower Mississippi Valley, and parts of the central and southern Plateau region. Elsewhere less than median value is indicated.

Weather forecast given here is based on the official 30-day "Resume and Outlook" published twice a month by the National Weather Service. You can subscribe through the Superintendent of Documents, Washington, D.C. 20250. Price $5.00 a year.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

ARMYWORM (Pseudaletia unipuncta) - MAINE - Continued problem on corn; fields need to be sprayed. (Gall).

BEET LEAFHOPPER (Circulifer tenellus) - CALIFORNIA - Curly top in only 4 plants in 16 fields of cucumbers, peppers, tomatoes, and sugar beets in northern Salinas Valley and Santa Clara Valley week ending August 8. Counts very light on roadside weed hosts. Less than one percent infection in San Ardo and Hames Valley. (Cal. Coop. Rpt.). UTAH - Spread curly top and caused heavy losses to potatoes and tomatoes in Washington and Juab Counties. (Huber, Jones).

CORN EARWORM (Heliothis zea) - UTAH - Taken each week recently in blacklight trap near Salt Lake City Airport, Salt Lake County. (Stephens, Knowlton). TEXAS - Moderate on grain sorghum in San Angelo area. Declined on peanuts in Comanche County. (McWhorter, Curtis). OKLAHOMA - Moderate to heavy on peanuts in Washita and Caddo Counties, moderate on Jefferson County sorghum heads, and light on soybeans in Sequoyah, Wagoner, Muskogee, and Le Flore Counties. (Okla. Coop. Sur.). NEBRASKA - Trace to moderate in Clay County and throughout northeast district. Eggs on up to 90 percent of silks on late field and sweet corn and popcorn in Hall, Merrick, York, and Fillmore Counties. Up to 5 per ear infested all ears in southern Gage County cornfield. (Gary et al.).

ALABAMA - Larvae of corn earworm and Spodoptera frugiperda (fall armyworm) ranged 2-10 in and on all corn ears in 30-acre field at Loachapoka, Lee County. Larvae entered ears at silk tips and along side and stem portions. S. frugiperda 10:1 over H. zea. (McQueen). NORTH CAROLINA - Second through fourth instars in most of 20 open canopy blooming soybean fields. Few northern Coastal Plain fields near threshold, 50 percent of 15 Sampson and Duplin County fields at threshold; one second through third instar larva per foot of row. Moths active in all fields surveyed. (Quinn, Hunt). OHIO - Larvae very light in northwest counties week ending August 8. Heaviest at 2 per 25 corn plants in Hardin County field. (Lewis).

CORN LEAF APHID (Rhopalosiphum maidis) - WISCONSIN - Still heavy in some late fields of dent and sweet corn, populations on early corn collapsed. Colonies of 500+ per plant on 10+ percent of plants; aphids on tassels, silks, and undersides of all leaves. (Wis.Ins. Sur.). MAINE - Effect worsened by drought. Heavy in some cornfields in central area. Completly covered tassels; colonies of 500+ aphids on leaves. Some parasites, disease, and lady beetles Adalia bipunctata (twospotted), Hippodamia convergens (convergent), and H. tredecimpunctata tibialis (thirteenspotted) increasing. (Gall).

GREENBUG (Schizaphis graminum) - NEW MEXICO - Significant resistance to initial chemical controls on small grains in Luna, Curry, and Roosevelt Counties. Suggest "biotype D" present for first time in State. (N.M. Coop. Rpt.). COLORADO - Infested sorghum in all areas of Arkansas Valley, up to 500 per plant in some fields with up to 50 percent of plants infested. Controls underway in many fields. (Schweissing).

TEXAS - Greenbug remained heavy on grain sorghum in San Angelo and Rolling Plains areas. Controls applied at Lubbock, Lubbock County. (McWhorter et al.). OKLAHOMA - Decreased statewide on sorghum. Many fields in western half of State treated; predators and parasites increased in many untreated fields to point where they control greenbugs. Scattered moderate to heavy infestations still in most areas, many aphids 20-75 percent parasitized. (Okla. Coop. Sur.). NEBRASKA - Parasitism by Lysiphlebus testaceipes (a braconid wasp) almost 100 percent in eastern third of State. Parasitism at or near 100 percent in northeast district except possibly in northern Knox and Boyd Counties. Greenbug averaged 18 per plant, field averages ranged 0-120 per plant; parasitism 95-100 percent. Other fields in east and southeast districts free or nearly free of greenbugs. Parasitism somewhat lighter in southwest district but on increase. Parasitism around McCook, Red Willow County, ranged 30-35 percent. Wasps much fewer in northern part of district. Parasitism 3 percent at North Platte, Lincoln County. (Campbell et al.).

POTATO LEAFHOPPER (Empoasca fabae) - WISCONSIN - Populations collapsed in several untreated, uncut alfalfa fields. Declined from 50+ and 150+ per sweep 14 days ago to 3 and 13, respectively. Decrease apparently due to rapid reproduction decline; small nymphs few in any field. Averaged 9 per sweep in southern counties, less than 5 per sweep in Chippewa, Barron, Dunn, and northern Trempealeau Counties, and 10+ per sweep in Pepin, Pierce, St. Croix, Buffalo, and Eau Claire Counties. Ranged 20-50 per sweep in some west-central area fields. Up to 25 per sweep in some Winnebago County fields. (Wis. Ins. Sur.).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEVADA - Ranged 3-30 per sweep on seed alfalfa at Lovelock, Pershing County. Ranged 125-150 per sweep with large amounts of honeydew in 30-acre field. Heavier in greener fields and in lower valley. Some controls applied. (Munk). UTAH - Damaged some seed alfalfa at Delta and Sutherland, Millard County. (Chapman). OKLAHOMA - Averages per 10 sweeps, one field each per county: Pawnee 140, Noble 25, Kay 70, Grant 550, Alfalfa 10, and Woods 2. (Okla. Coop. Sur.).

TOMATO HORNWORM (Manduca quinquemaculata) - MISSISSIPPI - Larvae heavy, 2+ per plant, in garden tomatoes in Issaquena and Oktibbeha Counties week ending August 8. (Robinson).

CORN, SORGHUM, SUGARCANE

EUROPEAN CORN BORER (Ostrinia nubilalis) - NEBRASKA - Egg masses on average of 52 percent of corn in 9 northeast district fields. Field averages ranged 0.01-1.04 egg masses per plant. Hatch beginning and first-brood moths still active. Egg masses on 50 percent of plants in Antelope County. Two eastern district fields averaged 40 percent of plants with egg masses. Moths heavy and active in northwest Dawson County. (Witkowski et al.). MISSOURI - Second-brood infestations light in most south-central area fields. Infested plants ranged 0-17 percent. Larvae ranged 1-4, mainly third instars, per infested plant. (Munson).

WISCONSIN - Heavy in blacklight traps in southern, central, and west-central counties. Egg masses on 8-10 percent of corn in south-central counties, more on some sweet corn. Up to one-fourth

of eggs ready to hatch. European corn borer pupae and empty pupal cases outnumber fifth instars in southern, central, and west-central areas. Moths and pupae now present will make up second adult flight. (Wis. Ins. Sur.).

FLORIDA - One European corn borer female collected in blacklight trap at Monticello, Jefferson County, by J.C. Ball June 10, 1975. Determined by D.C. Ferguson. This is a new county record. (Fla. Coop. Sur.). DELAWARE - Adults averaged 15 per night in blacklight trap collections in Sussex County. (Burbutis). MAINE - Continued spotty, from 5 per corn plant and almost 100 percent infestation in Waldo County to almost none in west-central area. (Gall).

FALL ARMYWORM (Spodoptera frugiperda) - NEVADA - Infested less than 5 percent of field corn surveyed in Pahranagat Valley and Panaca, Lincoln County; damage confined to developing tassels and whorls. (Barclay et al.). MISSISSIPPI - Heavy on late-planted pretassel corn in Oktibbeha and Noxubee Counties week ending August 8. Larvae 1-4 on all experimental plants. Larvae 1-2 per plant in 25 percent of plants in 30-acre Noxubee County field. Percent of plants infested by county: Lowndes 5-10, Jefferson 90, and Copiah 50. (Robinson). GEORGIA - Light to heavy in all stages of corn statewide week ending August 9. Controls applied to corn in early tassel to prevent damage to small ears. (Suber).

VARIEGATED CUTWORM (Peridroma saucia) - NEBRASKA - Damage light to moderate to corn statewide. Damage light in Knox County field. Infested 50 percent of ear tips in Antelope County field. Trace in Clay County. Ear tip infestation averaged 30 percent in 4 fields checked in Hall, Merrick, York, and Fillmore Counties. Infested field at Ainsworth, Brown County. (Campbell et al.).

SORGHUM WEBWORM (Celama sorghiella) - TEXAS - Continued to damage sorghum in Hill and Ellis Counties. Light in Rolling Plains. (Buxkemper, Boring).

CORN ROOTWORMS (Diabrotica spp.) - UTAH - D. virgifera (western corn rootworm) moderately damaged untreated corn in Box Elder County; adults active at Garland. Some injury at Lehi, Utah County. Heavy at south Jordan, Salt Lake County; adults on leaves and silks. (Lindsay et al.). NEBRASKA - Diabrotica spp. adults averaged 1.45 per plant in Clay County. Field averages ranged 0-8.5 per plant. Averaged 2.4 per plant in 9 northeast district fields. Adults up to 5 per ear tip in York, Fillmore, Hall, and Merrick Counties. (Raun et al.). SOUTH DAKOTA - Diabrotica spp. adults 2-25 per plant in most eastern fields. (Walstrom). MINNESOTA - West-central district survey for Diabrotica spp. completed. Counts less than half that of 1974; lodging negligible. Southwest district survey 50 percent complete; counts averaging about half that of 1974. Near record populations in southeast district with severe lodging in some counties. Total of 248,757 beetles per acre in Olmsted County cornfield with 90-percent lodging; 138,593 per acre in another field with 70-percent lodging. South-central district populations will be near 1974 levels, down from previous years, but still heavy. (Minn. Pest Rpt.).

OHIO - Diabrotica virgifera taken in 2 cornfields (one per 25 plants) in Van Wert County August 4, 1975, and in one Hancock County field (one per 100 plants) August 5. Adults one per 25 plants in one field each in Lucas, Wood, and Sandusky Counties on August 12 and adults one per 100 plants in one field each in Allen, Auglaize, and Mercer Counties on August 13. Collected and determined by D.R. Lewis. These are new county records. D. longicornis light in northwestern counties. Up to 72 beetles per 25 plants. Averages by county: Fulton 2.5, Henry 19.5, Lucas 1.3, Wood 4.9, Ottawa 1.5, Sandusky 39.5, Seneca 14.3, Wyandot 5.0, Allen 24.0, Mercer 9.5, and Auglaize 4.7. (Lewis).

SORGHUM MIDGE (Contarinia sorghicola) - TEXAS - Heavy on grain sorghum in San Angelo, Hill and Ellis Counties, and Rolling Plains areas. (Buxkemper et al.).

BANKS GRASS MITE (Oligonychus pratensis) - OKLAHOMA - Increased on Texas County corn; some fields treated. (Okla. Coop. Sur.). COLORADO - Light to moderate in untreated cornfields in Arkansas Valley. Some infestations up to twelfth leaf on plants with much foliar injury. Many fields received first treatment. (Schweissing).

TURF, PASTURES, RANGELAND

A SCARAB BEETLE (Ataenius spretulus) - OHIO - Second-generation larvae severely damaged golf course at Cincinnati, Hamilton County. Larvae averaged 300 per square foot. (Niemczyk).

FALL ARMYWORM (Spodoptera frugiperda) - ALABAMA - Damaging populations on Coastal Bermuda grass and other grass lawns in Autauga and Lee Counties. (Kirkpatrick et al.).

CHINCH BUG (Blissus leucopterus leucopterus) - NEW YORK - Lawns damaged in Chemung, Broome, Suffolk, Orange, and Chautauqua Counties. (Willson).

GRASS BUGS (Labops spp.) - UTAH - Most abundant of grass bugs discoloring range grasses in Franklin Basin, Cache County. Moderately damaged some Millard County range areas. (Jones). Labops spp. adults moderate, active from 9,000-foot elevation to summit area on planted grasses in Ephraim Canyon, Sanpete County. Some still nymphs; others mating at 10,000-foot elevation. (Haws, Knowlton).

FORAGE LEGUMES

GREEN CLOVERWORM (Plathypena scabra) - OKLAHOMA - Averaged 52 per 10 sweeps in Pawnee County alfalfa. Ranged 1-8 per 10 sweeps in Noble, Kay, Grant, Alfalfa, and Woods Counties. (Okla. Coop. Sur.).

VARIEGATED CUTWORM (Peridroma saucia) - UTAH - Heavy on alfalfa at Huntsville, Weber County, in Davis County, and Garland, Box Elder County. More conspicuous than in several years. (Brindley et al.).

ALFALFA WEEVIL (Hypera postica) - NEVADA - Late instar averages per sweep of hay alfalfa in Lake Valley, Lincoln County, by area: North - 2, central - one, and south - less than one. Probably represents abnormal second generation. (Zoller et al.).

PEA APHID (Acyrthosiphon pisum) - COLORADO - Up to 70 per sweep in some alfalfa fields in Arkansas Valley. (Schweissing). NEBRASKA - Early cutting recommended for one Lincoln County alfalfa field. (Campbell).

THREECORNERED ALFALFA HOPPER (Spissistilus festinus) - TENNESSEE - Damage very light to alfalfa in Franklin, Coffee, Rutherford, Williamson, and Davidson Counties week ending August 8. Damage in very small spots within fields. (Gordon et al.).

LYGUS BUGS (Lygus spp.) - NEVADA - Up to 17 per sweep on seed alfalfa at Orovada, Humboldt County. (Stitt, August 8). Nymphs and adults ranged 15-20 per sweep in several seed alfalfa fields at Lovelock, Pershing County. (Munk).

SOYBEANS

VELVETBEAN CATERPILLAR (Anticarsia gemmatalis) - FLORIDA - By August 14, larvae on soybeans ranged 3-30 (averaged 8-10) per foot of row. High numbers, 17 days earlier than usual, in fields treated 3 times in Gulf County, and in Calhoun and Gadsden Counties where half of fields treated once. (Fla. Coop. Sur.). ALABAMA - Second generation widespread in southern and central areas on most soybeans; some larvae in extreme northern Colbert County. Excessive populations expected to damage late-developing beans in September and October due to more widespread and northerly located populations. (Pitts et al.).

GREEN CLOVERWORM (Plathypena scabra) - OKLAHOMA - Heavy, up to 277 per 30 row feet, in Wagoner County soybeans. Light in Muskogee, Sequoyah, and Le Flore Counties. (Okla. Coop. Sur.). ILLINOIS - Up to 10 per foot of row in Grundy and Livingston Counties; averages ranged 3-5 per foot. Defoliation noneconomic. About 50 percent fully grown larvae. No diseased larvae. (Ill. Ins. Rpt.).

MEXICAN BEAN BEETLE (Epilachna varivestis) - TENNESSEE - Defoliated 50-75 percent of about 200 acres of soybeans in Lincoln County. Controls applied. (Pendergrass, Cagle).

GREEN STINK BUG (Acrosternum hilare) - VIRGINIA - Heavy in 5-acre Westmoreland County soybean field. (Allen).

PEANUTS

SOUTHERN CORN ROOTWORM (Diabrotica undecimpunctata howardi) - GEORGIA - Light to heavy from middle of peanut belt to western and southern borders week ending August 9. (French).

COTTON

BOLLWORMS (Heliothis spp.) - TEXAS - H. zea light on cotton in High Plains and Hill and Ellis Counties. Moderate to heavy in San Angelo area; heavy in Rio Grande Valley and Rolling Plains areas. (McIntyre et al.). OKLAHOMA - H. zea-damaged squares ranged 5-90 percent in Jackson County and up to 50 percent in Washita and Caddo Counties, and averaged 10 percent in Grady County. (Okla. Coop. Sur.). LOUISIANA - Percentage of H. virescens (tobacco budworm)

increased significantly week of August 8. Percentage of larvae collected from cotton by parish: Caddo and Bossier 30, Ouachita 34, Natchitoches 19, Rapides 17, and Tensas 15. Egg laying increased in upper Red River Valley. (Tynes). ARKANSAS - Heliothis virescens comprised 21 percent of population on cotton. Heavy, scattered infestations. (Wall).

MISSISSIPPI - Second-generation Heliothis spp. larvae infested cotton statewide week ending August 8. Treatments generally successful. Up to 15 percent of terminals infested in some fields, possibly due to recent rains. (Robinson). TENNESSEE - Heliothis spp. very heavy in Shelby, Hardeman, and Fayette Counties. Increased in Madison and Gibson Counties. Up to 20 larvae per 100 bolls in untreated fields in Lincoln County; controls effective. (Cagle, Pendergrass). GEORGIA - Egg laying heavy, up to 20 larvae per 100 cotton terminals in Dooly County field week ending August 9. (Womack).

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Moderate to heavy on cotton in Rio Grande Valley and San Angelo areas; light in Hill and Ellis Counties. Heavy in Rolling Plains. Increased in south-central area. (Norman et al.). MISSISSIPPI - Second-generation punctured squares ranged by county week ending August 8: Alcorn 18-30, Carroll 0-37, Copiah 0-100 on 600 acres, Lowndes 0-10, Noxubee 2-25 on 2,500 acres. (Robinson). ALABAMA - Still heavy, 2-90 percent statewide. Averages ranged 15-30 percent. Emerged from old squares at much higher rate than in most years due to heavy egg laying; controls could not be properly applied. (Lowery et al.). GEORGIA - Many young adults fed in blooms statewide week ending August 9. Punctured squares up to 80 percent in some fields where controls interrupted by rain. (Womack). TENNESSEE - Survey limited week ending August 8 due to rain. Punctured squares ranged 8-82 percent in southern tier of counties of western area. (Locke). Boll weevil currently at, or above, control levels in most cotton areas. Up to 70 percent punctured squares in fields surveyed. Recent rains continued to make controls difficult. (Pendergrass, Cagle).

COTTON FLEAHOPPER (Pseudatomoscelis seriatus) - TEXAS - Light on cotton in Hill and Ellis Counties; light to moderate in San Angelo area. (Buxkemper, McWhorter). OKLAHOMA - Very heavy in Caddo and Washita Counties. (Okla. Coop. Sur.).

COTTON APHID (Aphis gossypii) - TEXAS - Problems on High Plains cotton. Moderate to heavy in Rolling Plains. (McIntyre, Boring).

TWOSPOTTED SPIDER MITE (Tetranychus urticae) - ALABAMA - Numerous infestations at field edges in Lee and Cherokee Counties; one field treated in Cherokee County. (Dean et al.).

TOBACCO

TOBACCO BUDWORMS (Heliothis spp.) - TENNESSEE - Nine of 11 fields surveyed in Trousdale, Sumner, Smith, and Macon Counties, and all fields surveyed in Lincoln County at, or above, control levels. (Gregory, Cagle).

TOBACCO HORNWORMS (Manduca spp.) - TENNESSEE - Six of 11 fields surveyed in Trousdale, Sumner, Smith, and Macon Counties at, or above control, levels. Increased in almost all fields. (Gregory).

SUGAR BEETS

VARIEGATED CUTWORM (Peridroma saucia) - UTAH - Injured sugar beets at Garland, Box Elder County. (Parrish).

MISCELLANEOUS FIELD CROPS

SUNFLOWER MOTH (Homoeosoma electellum) - TEXAS - Heavy on sunflowers in Rolling Plains; light in High Plains. (Boring, McIntyre).

CARROT BEETLE (Bothynus gibbosus) - TEXAS - Adults increased in light traps in Rolling and High Plains areas. (Boring, McIntyre). OKLAHOMA - Light trap catches by county: Tillman 5,253, Greer 3,500, and Jackson 14. (Okla. Coop. Sur.).

POTATOES, TOMATOES, PEPPERS

BLACK CUTWORM (Agrotis ipsilon) - MAINE - Damaged about 20 percent of tubers in commercial field of potatoes. Hot weather caused feeding below soil level. (Gall).

VARIEGATED CUTWORM (Peridroma saucia) - OREGON - First larvae of season in 20-acre field of Russett potatoes near Aurora, Clackamas County. Ranged 2-14 per 5 foot of row. (Collins).

TOMATO PINWORM (Keiferia lycopersicella) - TEXAS - Increased throughout south-central area. (Cole).

GREEN PEACH APHID (Myzus persicae) - MAINE - Appeared in yellow trap pans. Alates in traps and in potato fields. Heaviest counts in traps per night by area. Corinna 2,000+, southern Aroostook - several hundred, northern and central Aroostook - a few. (Gall).

BEANS AND PEAS

MEXICAN BEAN BEETLE (Epilachna varivestis) - UTAH - Heavy on beans in Cache, Box Elder, and Salt Lake County gardens. (Knowlton, Lindsay). NEBRASKA - Larvae ranged 5-6 per bean plant in 16 northwestern district fields. (Hagen). DELAWARE - Adults common on lima beans statewide. (Burbutis).

GREEN CLOVERWORM (Plathypena scabra) - NEW YORK - Active on western area snap and dry bean fields. Hot weather allowed buildup. (Muka).

GENERAL VEGETABLES

SPOTTED ASPARAGUS BEETLE (Crioceris duodecimpunctata) - CALIFORNIA - Adults taken from asparagus at Carmichael, Sacramento County, August 7, 1975, by M. Terry and J. Dickson. Determined by T. Seeno. This is a new State record. (Cal. Coop. Rpt.).

CABBAGE LOOPER (Trichoplusia ni) - VIRGINIA - Adults increased steadily. Larvae infested cucurbits, tomatoes, and cole crops in Accomack County. Averaged 15 per plant on untreated collards at Painter Station. Very little polyhedrosis virus. (Hofmaster).

VARIEGATED CUTWORM (Peridroma saucia) - ILLINOIS - Severely damaged garden tomatoes in Cook and other northeast district counties. (Ill. Ins. Rpt.).

SPINACH LEAFMINER (Pegomya hyoscyami) - MAINE - Active in 3 areas on spinach and swiss chard. (Gall).

DETECTION

New State Records - SPOTTED ASPARAGUS BEETLE (Crioceris duodecimpunctata) - CALIFORNIA - Sacramento County. (p. 705). A WEEVIL (Scyphophorus acupunctatus) - ALABAMA - Mobile County. (p. 707).

New County and Parish Records - AN ARGASID TICK (Ornithodoros coriaceus) CALIFORNIA - Solano, Siskiyou, Humboldt (p. 710). A COCKROACH (Cryptocercus punctulatus) VIRGINIA - Patrick (p. 708). EUROPEAN CORN BORER (Ostrinia nubilalis) FLORIDA - Jefferson (p. 700). FACE FLY (Musca autumnalis) TENNESSEE - Franklin, Rutherford (p. 709). GULF COAST TICK (Amblyomma maculatum) ARKANSAS - Sevier (p. 710). A PUNCTUREVINE SEED WEEVIL (Microlarinus lareynii) OKLAHOMA - Grant, Alfalfa, Garfield (p. 710). RED IMPORTED FIRE ANT (Solenopsis invicta) TEXAS - Refugio (p. 711). WESTERN CORN ROOTWORM (Diabrotica virgifera) OHIO - Van Wert, Hancock, Lucas, Wood, Sandusky, Allen, Auglaize, Mercer (p. 702). A WHITEFRINGED BEETLE (Graphognathus peregrinus) LOUISIANA - Richland (p. 711).

HAWAII INSECT REPORT

General Vegetables - CARMINE SPIDER MITE (Tetranychus cinnabarinus) moderate to heavy in small plantings (less than 0.25 acre) of mustard cabbage, bush beans, and eggplant at Koko Head, Oahu. All stages present; damage light. Results of TOMATO PINWORM (Keiferia lycopersicella) survey in July at Kula, Maui, showed light infestations in preharvest and harvest stage tomatoes. Heavy in planting left standing after harvest. (Miyahira). BROAD MITE (Polyphagotarsonemus latus) heavy in acre of eggplant at Waimanalo, Oahu. More than 40 per square inch on infested leaves; nearly all plants infested. Severe terminal damage on many plants. Damage light in backyard eggplant plantings at Koko Head and Ewa, Oahu. Heavy CHINESE ROSE BEETLE (Adoretus sinicus) damage on eggplant foliage in several backyard gardens at Ewa; 40-60 percent of leaf area destroyed. Heavy BEET ARMYWORM (Spodoptera exigua) infestation in 0.25 acre of green onions at Koko Head. At least 80 percent of plants infested, leaf loss light. (Mau).

Fruits and Ornamentals - BANANA SKIPPER (Erionota thrax) reported in late July from east Maui for first time. Light in several banana plantings at Haiku. Light (8 late instars and 3 pupae) recovered from 12 banana trees at Iroquois Point, Oahu. No larvae parasitized. Few light infestations in surrounding residential area and at Ewa Beach, Oahu. (Miyahira et al.).

Beneficial Insects - Four releases of a PTEROMALID WASP (Pteromalus luzonensis), a pupal parasite of Papilio xuthus (citrus swallowtail), totaling 1,190 adults made at Kahului (3 releases) and Lahaina, Maui. First releases on Maui. (Miyahira).

DECIDUOUS FRUITS AND NUTS

GREEN JUNE BEETLE (Cotinis nitida) - TEXAS - Heavy on peaches and apples in Rolling Plains area. (Boring).

PEARSLUG (Caliroa cerasi) - UTAH - Injury to pear and apple foliage conspicuous in Juab County orchards. (Jones).

PEAR PSYLLA (Psylla pyricola) - UTAH - Moderate in some Box Elder County pear orchards. (Lindsay).

PECAN WEEVIL (Curculio caryae) - OKLAHOMA - Scattered light to moderate infestations on pecans in Mayes, Haskell, Murray, Pontotoc, and Jefferson Counties; some heavy infestations in Jefferson County. (Okla. Coop. Sur.).

OBLIQUEBANDED LEAFROLLER (Choristoneura rosaceana) - OREGON - Severe damage to 25-acre filbert orchard at Salem, Marion County. (Niazee).

FALL WEBWORM (Hyphantria cunea) - TEXAS - Light to moderate on pecans in San Angelo area; heavy in south-central and Rolling Plains areas. (McWhorter et al.). WEST VIRGINIA - Moderate in Summers, Mercer, McDowell, Mingo, Monroe, and Raleigh Counties; nests 1-3 per tree on scattered walnut and hickory trees. (Hacker).

WALNUT HUSK FLY (Rhagoletis completa) - OREGON - Emergence in walnut orchards at Dundee, Yamhill County, peaked August 9. Average daily counts for 10 traps in orchards rose from one per trap July 31 to August 6, to 4.3 during August 6-13. (Niazee).

BLACKMARGINED APHID (Monellia costalis) - OKLAHOMA - Moderate to heavy on pecan trees in Payne (up to 45 per leaflet), Kingfisher, Murray, and Pontotoc Counties. (Okla. Coop. Sur.).

CITRUS

CITRUS WHITEFLY (Dialeurodes citri) - CALIFORNIA - Very severe on citrus and gardenias in parts of Sacramento, Sacramento County. Controls difficult; in some cases property owner removed trees and shrubs. (Cal. Coop. Rpt.).

ORNAMENTALS

A WEEVIL (Scyphophorus acupunctatus) - ALABAMA - Larvae ate out stalks and killed yucca and century plants west of Mobile, Mobile County. Collected by H.B. Brackin and L.W. Lockhart May 27, 1975. Determined by R.E. Warner. This is a new State record. (PPQ).

A FLEA BEETLE (Systena frontalis) - OHIO - Much damage to commercial mum planting near Oberlin, Lorain County. Earlier this season, counts heavy on forsythia. Feeding damage apparent in both cases. (Wells).

A TINGID BUG (Stephanitis takeyai) - OHIO - On Exbury hybrid azaleas in Stark County nursery adjacent to block of Pieris, the usual host. Azalea is new host record for State. Damage light to moderate on both hosts. (Kelly).

EUONYMUS SCALE (Unaspis euonymi) - TEXAS - Heavy on ornamentals in Rolling Plains. (Boring).

FOREST AND SHADE TREES

WHITE PINE WEEVIL (Pissodes strobi) - MAINE - Destruction of leaders continues. More severe in 1975 than in past years, or at least more homeowners concerned. (Gall).

A COCKROACH (Cryptocercus punctulatus) - VIRGINIA - Collected from pine 2x4 on home site in Patrick County by P.J. Egan April 23, 1975. Determined by D. Mullins. This is a new county record and extremely low elevation (1,000 feet) for species in State. (Surles).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - OREGON - Flight activity declined markedly at Portland, Multnomah County, first half of August. Only 24 beetles taken in 2 multilure traps in Ladd District August 1-11. Lighter catch in northwest Portland than in central and eastern portions. Two traps in Peninsular Park area caught 38 beetles. One in Portsmouth district caught 193 June 2 to August 7. (Penrose).

ELM LEAF BEETLE (Pyrrhalta luteola) - TEXAS - Moderate to heavy in San Angelo area. (McWhorter). NEW MEXICO - Damage light at Sante Fe, Sante Fe County, where not previously known. Damage in Dona Ana County spreading northward, pupation noted. (N.M. Coop. Rpt.). UTAH - Unusually severe in Juab County. (Jones). OREGON - Infestations in northern and central areas indicated second-generation adults fed on foliage. More damage expected. (Penrose).

IMPORTED WILLOW LEAF BEETLE (Plagiodera versicolora) - WEST VIRGINIA - Damaged 75-80 percent of foliage on most willows throughout McDowell County and scattered trees in Mingo and Monroe Counties. Larvae pupated, but adults few. (Hacker).

SADDLED PROMINENT (Heterocampa guttivitta) - MAINE - Hardwood defoliation heavy at Topsfield, Washington County. (Gall).

YELLOWNECKED CATERPILLAR (Datana ministra) - ILLINOIS - Seriously defoliated crabapple, maple, and other hardwoods in central area. (Ill. Ins. Rpt.).

MIMOSA WEBWORM (Homadaula anisocentra) - OKLAHOMA - Infested 75 percent of mimosa trees at Oklahoma City, Oklahoma County. Defoliation ranged 5-100 percent. Some damage to honeylocust. (Okla. Coop. Sur.).

BOXELDER LEAFROLLER (Gracillaria negundella) - NEVADA - Heavy larval damage to boxelder continued at Elko, Elko County; many trees severely damaged. (Martinelli).

SYCAMORE LACE BUG (Corythucha ciliata) - NEW JERSEY - Heavy on sycamores along city streets in central and northern counties. (Ins.-Dis. Newsltr.).

MAN AND ANIMALS

SCREWWORM (Cochliomyia hominivorax) - Total of 572 cases reported from continental U.S. August 3-9 as follows: Texas 527, New Mexico 9, Arizona 36. Total of 359 cases confirmed in portion of Barrier Zone in Republic of Mexico. Total of 286 cases reported in Mexico south of Barrier Zone. Number of sterile flies released this period totaled 198,255,000 as follows: Texas 182,024,000; New Mexico 3,108,600; Arizona 13,122,000. Total of 11,485,800 sterile flies released within Barrier of Mexico and 2,000,000 released south of Barrier. (Vet. Serv.).

HORN FLY (Haematobia irritans) - FLORIDA - Averaged 520 per beef animal near Gainesville, Alacha County. (Fla. Coop. Sur.). TEXAS - Heavy on cattle in San Angelo, Rolling Plains, and south-central areas. (Boring et al.). OKLAHOMA - Ranged 300-1,000 per head on Payne County cattle. Moderate to heavy in Comanche County. (Okla. Coop. Sur.). NEW MEXICO - Light to moderate. Averages ranged 50-100 per animal in Otero County. Ranged 400-500 per head on treated Lincoln County range cattle. (N.M. Coop. Rpt.). COLORADO - Ranged 90-200 per animal on untreated range cattle in Weld County. (Hantsbarger). NEBRASKA - Averaged 500+ per head on untreated cattle in Lincoln and McPherson Counties. (Campbell).

FACE FLY (Musca autumnalis) - MISSISSIPPI - Averaged 4.6 per face on 10 beef cattle in Oktibbeha County week ending August 8. Ranged 20-50 (averaged 35) per face in Alcorn County herd. (Robinson). TENNESSEE - Adults taken on cattle in Franklin and Rutherford Counties August 6, 1975. Collected and determined by J. Cagle and C. Gordon. These are new county records. (Gordon, Bruer). WISCONSIN - Very heavy and annoying to Fond du Lac County cattle. (Wis Ins. Sur.). NEBRASKA - Averages ranged 35-40 per untreated animal and 15 per treated animal on cattle in canyon and river pastures in Lincoln and McPherson Counties. (Campbell). UTAH - Annoyed horses at north Logan and Smithfield, Cache County. (Knowlton).

STABLE FLY (Stomoxys calcitrans) - NEBRASKA - Averaged 15 per leg on cattle in untreated lots in Lincoln and McPherson Counties. (Campbell). WISCONSIN - Annoyance severe to dairy cattle in parts of Polk County. (Wis. Ins. Sur.).

TABANID FLIES (Tabanus spp.) - OKLAHOMA - Ranged moderate to heavy on Murray County cattle. Heavy in localized favorable areas in Payne County. Species present in Payne County: T. sulcifrons, T. abactor, T. lineola, and T. atratus. (Okla. Coop. Sur.).

MOSQUITOES - ARKANSAS - Anopheles spp., mostly A. quadrimaculatus, increased in Lonoke County; 1,000+ per New Jersey light trap per night. Psorophora confinnis decreased to less than 20 per trap per night. (Meisch). OHIO - Light trap catches at Columbus, Franklin County, August 5 and 7 increased over previous week and averaged 41 adults per trap per night. Culex pipiens predominant. Aedes vexans and C. restuans present. (Ohio Dept. Health). UTAH - Abundant in Juab and Box Elder Counties. Very troublesome at Randolph, Rich County. (Jones et al.).

AN ARGASID TICK (Ornithodoros coriaceus) - CALIFORNIA - Taken from carbon dioxide pit traps in deer beds under trees. Collected in Siskiyou County June 17, 1975, and near Vacaville, Solano County, July 17 by M.N. Oliver; at Garberville, Humboldt County, July 2 by T. Vanzel. All determined by E.C. Loomis. These are new county records. (Cal. Coop. Rpt.).

GULF COAST TICK (Amblyomma maculatum) - ARKANSAS - Taken from dog at De Queen, Sevier County, July 1, 1975, by S. Stallard. Determined by E.P. Rouse. This is a new county record. Only previous collection in 1950-1951 in Washington County. (Boyer).

BENEFICIAL INSECTS

AN ICHNEUMONID WASP (Bathyplectes curculionis) - SOUTH DAKOTA - Numbers in southeast area equal those in west area. Percent parasitism of Hypera postica (alfalfa weevil) larvae collected in June by county: Union 20.9, Yankton 38.81, Bon Homme 27.78, and Clay 33.33. (Walstrom).

A BRACONID WASP (Lysiphlebus testaceipes) - OKLAHOMA - Increased rapidly in sorghum infested by Schizaphis graminum (greenbug) in western one-half of State. Parasitism ranged up to 50 percent in west-central area, and up to 30 percent in Panhandle area. (Okla. Coop. Sur.).

CONVERGENT LADY BEETLE (Hippodamia convergens) - OKLAHOMA - Very heavy in aphid-infested sorghum and alfalfa in north-central and northwest counties. Heaviest in alfalfa, 60 adults and 20 larvae per 10 sweeps, in Grand County. (Okla. Coop. Sur.).

A SAPYGID WASP (Sapyga pumila) - NEVADA - This parasite of Megachile rotundata (alfalfa leafcutter bee) increased in seed alfalfa fields at Orovada, Humboldt County. (Lauderdale).

A PUNCTUREVINE SEED WEEVIL (Microlarinus lareynii) - OKLAHOMA - Taken from puncturevine near Gilbert, Grant County, and 5 miles north of Cherokee, Alfalfa County, August 12, 1975, and at Kremlin, Garfield County, August 14. Collected and determined by D.C. Arnold. These are new county records. (Okla. Coop. Sur.).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

GRASSHOPPERS - CALIFORNIA - Camnula pellucida and Oedaleonotus enigma heavy near Lake Henshaw and Warner Springs, San Diego County, week ending August 8. Adults on egg beds. Treatment completed on 736 acres of public land with economic counts. Control areas in seedling pine plantation in Shasta and Trinity National Forests, Siskiyou County. Averaged 9 per square yard on 1,434 acres in Harvey Valley, Lassen National Forest, Lassen County; controls planned. Averaged 8 per square yard on about 1,955 acres in Tule Lake National Wildlife Refuge; all infested acreage in heavy small grain stands; no controls planned. (Cal. Coop. Rpt.). NEVADA - Bradynotes obesa averaged 9 per square yard (75 percent adults, 25 percent nymphs) on 2,000 acres of rangeland in Blue Lake area, Pine Forest Range, Humboldt County. (Anderson).

UTAH - Grasshoppers 1-3 per square yard on range at 9,000-foot elevation to summit of Ephraim Canyon, Sanpete County (Knowlton). More grasshoppers lightly damaged grain crops in some Box Elder County areas. (Lindsay). NEBRASKA - Melanoplus spp. heavy in borders of some northeast district corn. Grasshoppers severely damaged warm season grass rangeland at Mead, Saunders County; treatment recommended. (Mayo et al.). NORTH DAKOTA - Adult survey conducted. Margin averages per square yard by county: Slope 4, Bowman 2, Hettinger 3.5, and Grant and Sioux 2. Field averages per square yard by county: Slope 1.5, Hettinger 3, Grand and Sioux - one, Melanoplus bivittatus and M. sanguinipes dominant. (Scholl). MINNESOTA - Annual adult survey underway. Only economic in west-central district. Ranged 9-12 per square yard in 2 Traverse County alfalfa fields, mainly M. femurrubrum. Grasshoppers in road ditches and field margins in northwest, southwest, south-central, and central districts. (Minn. Pest Rpt.).

GYPSY MOTH (Porthetria dispar) - GEORGIA - Trapped for first time in Colquitt County near Moultrie July 18. (PPQ). VIRGINIA - Trapped for first time in Greensville County at Emporia August 4. (PPQ).

PINK BOLLWORM (Pectinophora gossypiella) - ARKANSAS - Trapped in Lonoke County August 12. (PPQ). TEXAS - Light in Wilbarger County of Rolling Plains area, unusually early on cotton. (Boring).

RED IMPORTED FIRE ANT (Solenopsis invicta) - TEXAS - Eight adults collected 8 miles west of Tivoli, Refugio County, by B.M. Culley August 14, 1975. Determined by B. Greer. This is a new county record. (PPQ).

WHITEFRINGED BEETLES (Graphognathus spp.) - LOUISIANA - One G. peregrinus adult collected on Diodia teres (poorjoe) at Rayville, Richland Parish, by G.L. Forcht July 18, 1975. Determined by R.E. Warner. This is a new parish record. (PPQ). MISSISSIPPI - Graphognathus spp. averaged 2 per 25 sweeps in 50 acres of prebloom Harrison County soybeans week ending August 8. (Snowden). ALABAMA - Graphognathus spp. adults feeding on soybean leaves in 30-acre Winston County field at one per 1.5 feet of row, one of heaviest infestations on northern area field crops. With heavy egg laying and mild winter, heavier infestations in this and other northern counties expected in 1976 and future years. (Murphy et al.).

LIGHT TRAP COLLECTIONS

	Temperature °F.	Precipitation (inches)	Type of trap (BL = blacklight, MV = incandescent mv, O = mercury vapor other)	Agrotis ipsilon (black cutworm)	Estigmene acrea (salt marsh caterpillar)	Faxon auxiliaris (grey cutworm)	Feltia subterranea (granulate cutworm)	Heliothis virescens (tobacco budworm)	H. zea (bollworm, corn earworm, tomato fruitworm)	Laspeyresia pomonella (codling moth)	Loxostege commixtalis (alfalfa webworm)	Loxostege rantalis (garden webworm)	Loxostege sticticalis (beet webworm)	Mamestra quinquemaculata (tomato hornworm)	Mamestra renigera (tobacco hornworm)	Ostrinia nubilalis (European corn borer)	Peridroma saucia (variegated cutworm)	Pseudaletia unipuncta (armyworm)	Spodoptera eridania (beet armyworm)	Spodoptera frugiperda (fall armyworm)	Spodoptera ornithogalli (yellowstriped armyworm)	Trichoplusia ni (cabbage looper)	Crops
CALIFORNIA																							
Bellota 7/30	58-87		BL	3													1	4	3				
Clements 7/29	55-85		BL	3			6											12					
COLORADO																							
Denver 8/1-8			BL							94													
FLORIDA																							
Gainesville 8/8-14			BL				10	1	19					5				1		27	3		
KENTUCKY (Counties)																							
Caldwell 8/12-13			BL	1					2					24			2	8					
Fayette 8/13-15			BL	5										1				6			4		
MICHIGAN (Counties)																							
Lenawee 8/5-11			BL	122											138	142	237			33	23		
Oceana 8/3-10			2BL	93											35	84	466			61	27		
MINNESOTA																							
Lamberton 8/6-13			BL						14						4045		26						
Shakopee 8/6-13			BL												37		108						
MISSISSIPPI																							
Stoneville 8/8-14	67-94	0.14	2BL	36	1		3	34	138								115	13	95	94	122		
NEBRASKA																							
Grand Island 8/9-15			BL						75						300								
Scottsbluff 8/9-15			BL	4		102							1			15	22						
NEW JERSEY																							
Seabrook 8/6-12			BL	55					10		28			18	30		498		12		51		
Vineland 8/6-12			BL	39										8	7		233		7		17		
NORTH DAKOTA																							
Bismarck 8/12			BL									2					5						
Bottineau 8/7, 11			BL									26					4				1		
OHIO																							
Wooster 8/9-15			BL	58		45			1						429	247	223		13	26	1		

LIGHT TRAP COLLECTIONS

	Temperature °F.	Precipitation (inches)	Type of trap (BL = blacklight, MV = mercury vapor, O = other)	Agrotis ipsilon (black cutworm)	Estigmene acrea (salt marsh caterpillar)	Rhyacionia frustrana (Comstock's shoot moth)	Paroneu diffusa (wheat head armyworm)	Pelilia subterranea (granulate cutworm)	Heliothis virescens (tobacco budworm)	H. zea (bollworm, corn earworm, tomato fruitworm)	Laphygma frugiperda (fall armyworm)	Loxostege commixtalis (garden webworm)	Loxostege sticticalis (beet webworm)	Loxostege cerealis (garden webworm)	Mamestra configurata (tomato cutworm)	Mamestra picta (tobacco cutworm)	Ostrinia nubilalis (European corn borer)	Peridroma saucia (variegated cutworm)	Pseudaletia unipuncta (armyworm)	Spodoptera exigua (beet armyworm)	Spodoptera frugiperda (fall armyworm)	Spodoptera ornithogalli (yellowstriped armyworm)	Trichoplusia ni (cabbage looper)	Crops
OREGON																								
Mt. Angel 8/7-15			BL	1																				
St. Paul 8/7-15			BL	1																				
SOUTH DAKOTA																								
Brookings 8/7-13			BL				2										57	21	15				2	
TENNESSEE (County)																								
Madison 8/4-11			BL	1						7				2					18		4	11	9	
VIRGINIA																								
Blacksburg 8/8-14			BL	10						7				1	5	18	9	44		40	12			
WEST VIRGINIA (Counties)																								
Monroe 8/11			BL	1	8											2	3	19			18			
Randolph 8/13			BL	243	8												113	780			56	2		
WISCONSIN																								
Lancaster 8/7-11			BL													79	6	11						
Mazomanie 8/7-11			BL	1												289		4						

WEATHER OF THE WEEK ENDING AUGUST 17

Reprinted from Weekly Weather and Crop Bulletin supplied by National Weather Service, NOAA.

HIGHLIGHTS: A slow moving cold front made news when it broke the hot dry spell over the Plains and upper Mississippi Valley, significant rains favored Iowa and spilled over into Missouri. By the end of the week, the frontal system stretched eastward targeting its heaviest rains on the northeast, central, and southeast portions. Near normal temperatures dominated most of the Nation but cooler readings across the northern Plains reflected the movement of the weather system eastward.

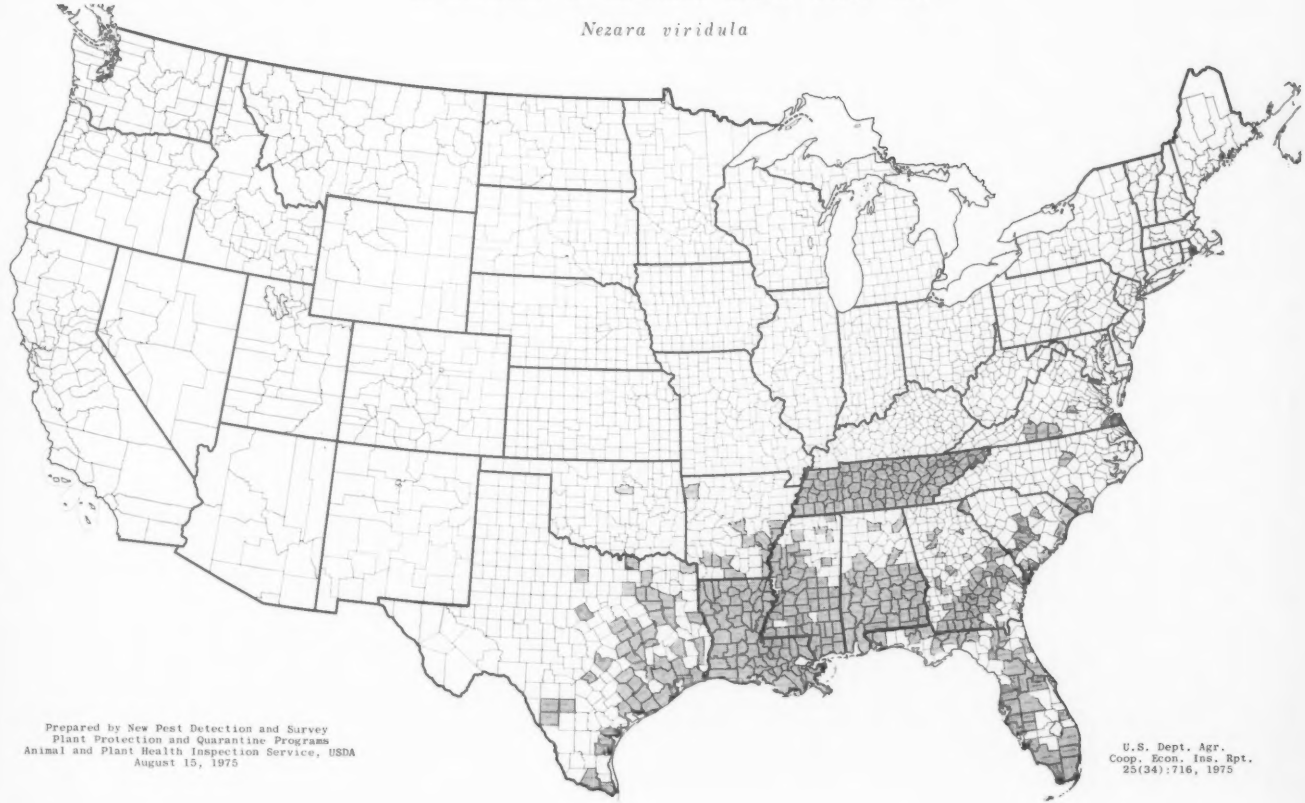
PRECIPITATION: All eyes were turned to the central Plains Monday, as dry conditions persisted. A few scattered showers turned up in Iowa but had little effect. In Kansas City, Missouri, only 0.25 inch of rain had fallen in 50 days. Other areas got more than their share. Thunderstorms sprang up along the Atlantic and gulf coasts and gained momentum in the Ohio and middle Mississippi Valleys and throughout the southern Great Lakes States. Showers dotted southern portions of the Rockies and Plateau regions. Otherwise, fair weather sprawled across an area from the northern Pacific coast to the upper Mississippi Valley and from the southern Plains into the southern Appalachians. An early morning rash of thunderstorms broke out Tuesday in the central and southern Intermountain Regions and deserts and high mountains of California. At the same time, a band of storms assembled in southwest Texas. By afternoon, showers staked a bigger claim and also covered an area from the western Great Lakes into the middle Missouri Valley. It took a while, but substantial rains finally reached the parched midlands on Wednesday to lend a hand to those crops that still held on. A slow moving cold front drifting south and east through the Plains and upper Mississippi Valley touched off storms mostly in Upper Michigan through southern Wisconsin, northern Illinois across Iowa and southern Nebraska into northern Kansas and eastern Colorado. In the central and southern Plains, afternoon thundershowers kicked up locally heavy rains that continued into the evening hours. Even though the frontal system drifted slowly east and west on Thursday, rainfall still held its ground against the hot dry weather in the central Plains. Scattered activity persisted across the northern, west-central, and southwestern Plains. By noon time, the front had taken up residence in upper and middle Mississippi Valley. Scattered showers stretched across the central Gulf States and from the middle Mississippi Valley to the middle Atlantic coast. Friday, rainfall shifted eastward. Thundershowers covered areas from the middle Atlantic States across the Applachians into the Ohio and Tennessee Valleys. Meantime, more showers turned up along the central and southern gulf coast, southern Plains and extended from the northern Plains into the northern Rockies. Otherwise, dry weather dominated the New England States, the Midwest, and far western parts of the country. Weekend showers were accompanied by isolated severe weather around the Nation. Showers and thundershowers stayed on in the upper Mississippi Valley following a front from southern New England down the Ohio Valley through southeast Oklahoma and into southwest Texas. The coast was clear along the south Atlantic except for a few thundershowers in Florida that were accompanied

by damaging winds. Fair conditions reigned over much of the north-central and southwest United States, interrupted by some isolated showers in the northern and central Rockies. General rains spread from the Pacific into western Oregon and northern California. The strongest activity, however, focused on the northeast, southeast, and central parts of the Nation.

TEMPERATURE: Readings in the 100's that are so common in the Desert Southwest turned up on Monday in Kansas and Missouri. Warm weather shoved the mercury into the 80's and 90's across much of the Nation. The Pacific coast noted temperatures in 60's and 70's and a few 70's dotted the northern Appalachians and Upper Great Lakes areas. Warm conditions across the western half of the Nation eased a bit on Tuesday. Readings in the 90's took some of the edge off the 100's heat in the Desert Southwest and middle Plains. In the northern Plains, afternoon temperatures in the lower 70's reflected movement of a cold front southward into the central Plains and east to the Missouri Valley. As a high pressure center trailed the cold front across the northern High Plains, Wednesday morning temperatures dipped into the 40's and 50's. Later on, some cooler readings also turned up in areas from the northern and central Rockies to the upper Great Lakes. Thursday's temperature pattern in the central and northern High Plains again testified to the arrival of cooler air there with readings in the 60's and 70's. Cooler but not unusual temperatures in the 50's and 60's dominated the north and central Pacific coast. For the rest of the Nation it was like summer, ranging in the 80's and 90's. Friday set the pace for a near normal weekend across most of the Nation: some 50's in the mountains and along the Pacific coast, low 100's in the desert areas, and 90's over the southeast quarter. The northern Plains held out as the exception. From Montana to Upper Michigan, afternoon highs stopped in the 60's and 70's.

Distribution of Southern Green Stink Bug

Nezara viridula



Prepared by New Pest Detection and Survey
Plant Protection and Quarantine Programs
Animal and Plant Health Inspection Service, USDA
August 15, 1975

U.S. Dept. Agr.
Coop. Econ. Ins. Rpt.
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